



Montana Department of Health and Environmental Sciences  
MONTHLY ACTIVITIES REPORT OF THE AIR QUALITY BUREAU

February 1977

STATE DOCUMENTS

JUL 877

1. Highlights

Significant time spent on Kalispell and Poplar River meteorological studies.

Time spent on AQMA modeling for Billings.

Negotiations with Department of State Lands and ASARCo towards a contract for the ASARCo Troy study.

A filing fee of \$33,500 has been agreed upon by The Anaconda Co. for their next SO<sub>2</sub> variance extension which will begin July 1, 1977. It is to be submitted by March 1.

2. Ambient Air Quality Network

Standards Exceeded:

- TSP\* - Greeley School, Butte, 3 excursions, Fed. 24-hr std.  
Greeley School, Butte, 1 excursion MT 24-hr. std.
- SO<sub>2</sub> - Saddle Mountain, E. Helena, 2 excursions, MT 1-hr. std.  
Post Office, Anaconda, 2 excursions, MT 1-hr. std.  
Mill Creek, Anaconda, 15 excursions, MT 1-hr. std.  
Mill Creek, Anaconda, 2 excursions, MT 24-hr. std.  
Mill Creek, Anaconda, 1 excursion, Fed. 24-hr. std.  
Mill Creek, Anaconda 2 excursions, Fed. 3-hr. std.  
Hiway Jct., Anaconda, 12 excursions, MT 1-hr. std.  
Hiway Jct., Anaconda, 2 excursions, MT 24-hr. std.  
Hiway Jct., Anaconda, 1 excursion, Fed. 24-hr. std.  
Hiway Jct., Anaconda, 2 excursions, Fed. 3-hr. std.  
C-Hill, Anaconda, 5 excursions MT 1-hr. std.  
C-Hill, Anaconda, 1 excursion, MT 24-hr. std.

Air Stagnation Advisories:

No Air Stagnation Advisories were issued during February.

Laboratory Status:

Total determinations for the month - 295  
Total samples for the month - 280

Developments:

Routine servicing and maintenance of analyzers in the state.

Work continued on locating site for CO monitor in Great Falls.

Installed CO and NO-NO<sub>2</sub>-NO<sub>x</sub> analyzers in Butte.

\* Total Suspended Particulates

MSB AUG 31 '77

3. Permits and Tax Credits

Construction Permits:

Application:

R. J. Studer & Sons Co., Carbon County, portable asphalt hot mix plant  
R. J. Studer & Sons Co., Carbon County, portable gravel crushing plant  
Gus M. Albert, Contractor, Valley County, portable asphalt hot mix plant  
Gus M. Albert, Contractor, Valley County, portable gravel crushing plant  
Dugdale Construction Co., Inc., Lewis & Clark County, portable hot mix plant  
Earth Builders, Inc., Garfield County, asphalt hot mix plant  
Earth Builders, Inc., Garfield County, portable gravel crushing plant  
Hilde Construction Co., Inc., Glacier County, portable gravel crushing plant  
Hilde Construction Co., Inc., Glacier County, portable gravel crushing plant  
and hot mix plant  
Hilde Construction Co., Inc., Pondera, Toole, Glacier & Blaine, portable gravel  
crushing plant  
Glasgow Packing Co., Valley County, heater

Approved:

Empire Sand and Gravel Co., Park County, portable hot mix asphalt plant  
Empire Sand and Gravel Co., Toole County, portable hot mix asphalt plant  
Empire Sand and Gravel Co., Toole County, portable gravel crushing plant  
Empire Sand and Gravel Co., Treasure County, portable hot mix asphalt plant  
Inland Asphalt Co. Lincoln County, asphalt batch plant  
Peter Kiewit Sons' Co., Prairie County, portable hot mix asphalt plant  
R. J. Studer and Sons, Carbon County, portable hot mix asphalt plant  
R. J. Studer and Sons, Carbon County, portable gravel crushing plant  
Gus M. Albert, Contractor, Valley County, portable hot mix asphalt plant  
Gus M. Albert, Contractor, Valley County, portable gravel crushing plant  
Earth Builders, Garfield County, portable hot mix asphalt plant  
Earth Builders, Garfield County, portable gravel crushing plant  
Hilde Construction Co., Glacier County, portable gravel crushing plant and  
hot mix asphalt plant  
Hilde Construction Co., Pondera, Toole, Glacier and Blaine Counties,  
portable gravel crushing plant

Tax Credits:

The Anaconda Company has been requested to submit additional information on  
their request for a property tax break on the electric furnace, fluid bed  
roaster, and concentrate handling facility.

4. Variance Status

Current Variances:

Anaconda Aluminum Company, Columbia Falls, F<sup>-</sup> and particulates, expires 6/30/77  
The Anaconda Co., Anaconda, SO<sub>2</sub>, expires 6/30/77  
ASARCO, Inc., East Helena, SO<sub>2</sub> expires 6/30/77



Monthly Report of Activities  
Page Four.  
February 1977

Open Burning Permits:

Kalispell Office	141	Yellowstone County	54
Cascade County	12	Rest of State	585
Lake County	66	Total Permits	877
Missoula County	19		

7. Source Tests Performed

Agency Source Tests:

None

Non-Agency Source Tests:

None

8. Field Investigation:

Gilman Excavating, Butte, inspection  
Stauffer Chemical, Butte, inspection  
Willow Creek, Livingston, tepee burner, in compliance  
Brand S Lumber, Livingston, tepee burner, in compliance  
Park Lumber, Livingston, tepee burner, in compliance  
Burkland Studs, Livingston, tepee burner, in compliance  
Idaho Cedar, Superior, tepee burner, citation issued  
Diamond International, Superior, boiler documented  
Louisiana Pacific, Missoula, particleboard plant, inspection, no action necessary  
U.S. Plywood, Bonner, plywood plant, inspection, no action necessary  
Plum Creek Fiberboard Plant, Columbia Falls, inspection  
Anaconda Aluminum, Columbia Falls, documentation  
Tour Ice, Evergreen, inspection  
American Asphalt, Kalispell, burning barrel, corrected  
Pack & Co., Kalispell, inspection  
Green Box Site, Columbia Falls, burning boxes, corrected  
Stoltze Land & Lumber, Half Moon, tepee burner, inspection  
Foy Lakes Area, slash burning  
Aronson Chicken Farm, Rollins, inspection  
Burlington Northern, Essex, trash burning, corrected  
C & C Plywood, Evergreen, inspection  
Kalispell City Asphalt Plant, Kalispell, inspection

9. Complaints

Al Cadeau, East Helena, open burning, under investigation  
Idaho Cedar, Superior, fallout, citation issued  
Wicks Lumber, Townsend, smoke, citation issued  
Robert Taylor Construction, Bozeman, dust from sandblasting building, corrected  
Rendering Plant, Miles City, odor, under investigation



10. Data Processing Services

Ambient Data Summary:

Monthly report of January air quality data attached.

Emissions Inventory:

No source updates were received or processed. Updates were performed to the system itself. Semi-annual report was sent to EPA.

Prevention of Significant Deterioration:

No significant activities were performed.

Modeling:

Modeling was performed for the Billings AQMA SO<sub>2</sub> analysis. Also worked on obtaining input data to the Great Falls transportation model.

11. Environmental Impact Statements

Agency Impact Determinations:

None

Other Agency EIS's Reviewed:

The final EIS for the East Decker and North Extension Mines at Decker, Montana, has not been released by the Department of State Lands. Our decision on the construction permit for the coal load-out facility at the East Decker Mine is dependent on information in that EIS.

12. Status of Studies, Contracts and Reports

AQMA's, progressing as scheduled with minor changes.

Additional work done on Columbia Falls meteorological study.

Additional equipment installed in Scobey for meteorological study.

Rough draft of Yellowstone County Air Pollution Control annual report received.

Health Study Phase I - The Bureau of Records and Statistics will complete this phase of the study by March 11.

Health Study Phase II - EPA has agreed to fund this phase of the study. It will start in April.

Contract with Department of State Lands for Troy area study should be signed soon.





13. Schools and Training

Two day seminar on technical writing, Helena

14. Public Hearings and Meetings

Public Hearings:

None

Meetings Attended:

ASARCo, SO<sub>2</sub> violations, Helena  
City-County Health Dept., AQMA, Missoula  
TAC meeting, Billings  
Bureau of Indian Affairs, AQMA, Billings  
Highway Department, Env. Impact Evaluation Group, Helena  
208 Meeting, Helena  
Poplar River Study, Helena  
Anaconda Co. personnel, meteorological data, Helena  
Montana Pole Co., operation log, Butte  
Stauffer Chemical, ambient sampling program, Butte  
Anaconda Co., ambient sampling program, Butte  
Dr. Bossard, Montana Tech., local pollution problems, Butte  
EPA, emergency episodes, Helena  
HB 250, Missoula  
City Council, electrical hookup, Columbia Falls  
Plum Creek Fiberboard personnel, emissions, Columbia Falls

Intra-Staff Meetings:

AQMA, staff, Billings  
Missoula - AQMA, staff, Helena  
HB 250, Helena  
AQB staff meetings, Helena  
staff, refinery enforcement, Helena

15. Public Information Requests

Air Quality Rules - 7  
General Assistance - 19  
Clean Air Act - 5

16. Fiscal Status

Grants Received:

None



Monthly Report of Activities  
Page Seven  
February 1977

Monthly Expenditures:

Program	Budget	Expenditures		Funds Remaining
		February	Year to Date	
0630	449,576	33,547.03	260,850.98	193,325.02
0631	74,400	5,653.50	17,894.50	56,505.50
0633	82,635	2,447.88	55,963.17	15,675.83
0681	76,300	2,566.37	27,753.32	48,546.68

17. Other

Approximately one and one-half days were spent up-dating our mailing list and list of asphalt batch plants operating in Montana



## MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

## MONTHLY SUMMARY OF AIR QUALITY DATA

January 1977

Pollutant: Misc. Continuous Data

Units: Parts per million

AREA		HIGH READING			ARITHMETIC AVER.		
AQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Mon. of Data	Comments
140	<u>Carbon Monoxide</u> 11th & S. 27th Billings 27th & Montana Billings	13.50	13.50	27.50	3.549	1	
140	<u>Hydrocarbons</u> 27th & Montana Billings	3.90	3.90	10.20	2.264	1	
143	<u>BN Site</u> Colstrip						
143	<u>Meth. Hydrocarbons</u> BN Site Colstrip						
143	<u>Non-meth. Hydrocarbons</u> BN Site Colstrip						
143	<u>Nitric Oxide</u> BN Site Colstrip						
143	<u>Nitrogen Dioxide</u> BN Site Colstrip						
143	<u>Oxides of Nitrogen</u> BN Site Colstrip						

\*\*\* Data not available at time of report

\* Equipment down

Pollutant: Misc. Continuous Data

Units: Parts per million

AQCR	AREA	HIGH READING			ARITHMETIC AVER.		Comments
	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Mon. of Data	
140	Ozone 27th & Montana Billings	0.03	0.03	0.10	0.013	1	
143	BN Site Colstrip						
140	Sulfur Dioxide 27th & Montana Billings	0.09	0.09	0.15	0.007	1	
	Laurel Farm Billings	0.61	0.61	0.80	0.095	1	10 Excur. Fed. 24-hr. std.
142	Laurel Water Plt. Billings			***			
	East Stack E. Helena	0.24	0.24	0.44	0.008	1	
	Microwave E. Helena	0.22	0.22	1.08	0.016	1	
	Saddle Mountain E. Helena	0.48	0.48	0.58	0.029	1	3 Excur. Fed. 24-hr. std.
	C-Hill Anaconda	1.00	1.00	2.54	0.008	1	6 Excur. Fed. 24-hr. std.
	Hiway Jct. Anaconda	1.06	1.06	1.58	0.027	1	3 Excur. Fed. 24-hr. std.
	Mill Creek Anaconda	0.34	0.34	1.36	0.009	1	2 Excur. Fed. 24-hr. std.
	Post Office Anaconda	0.18	0.18	1.02	0.006	1	
	Cogswell Building Helena	0.30	0.30	0.38	0.010	1	1 Excur. Fed. 24-hr. std.
143	BN Site Colstrip	0.01	0.02	0.02	0.000	1	

\*\*\* Data not available at time of report

\* Equipment down

Pollutant: Misc. Bubbler Data

Units: Parts per million

AQCR	AREA Site Location	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year- to-Date	Running Year	Year- to-Date	No. of Mon. of Data	
140	Sulfur Dioxide Lockwood School Billings 3/8 mi. NE Coop Billings			---			
143	Scobey Daniels Co. Ft. Peck McCone Co. Lane Deer Rosebud Co. BN Site Rosebud Co. McRae Site Rosebud Co.			---			
				---			
				---			
				---			
		0.000	0.015	0.015	0.001	1	
143	Nitrogen Dioxide Scobey Daniels Co. Ft. Peck McCone Co. Lane Deer Rosebud Co. BN Site Rosebud Co. McRae Site Rosebud Co.	0.005	0.005	0.015	0.002	1	
				---			
				---			
				---			
				---			
				---			

\*\*\* Data not available at time of report

\* Equipment down

Pollutant: Total Suspended Particulates

Units: Micrograms/cubic meter

AREA		HIGH READING			GEOMETRIC AVER.		Comments
AQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Data	
140	Morton Res. Big Horn Co. Warren Ranch Big Horn Co. Lockwood School Billings KGOH Billings City Hall Billings Grand Ave. Sch. Billings Burnstead Drive Billings Laurel Jr. High Laurel Hospital Roof Great Falls Fire Sta. #1 Great Falls	45	45	208	32.5	1	
		15	15	146	8.6	1	
		43	43	141	27.8	1	
		35	35	154	22.6	1	
		62	62	199	39.1	1	
		74	74	135	41.8	1	
		62	62	1117	56.8	1	
		38	38	108	29.8	1	
141	Laurel Hospital Roof Great Falls Fire Sta. #1 Great Falls	73	73	124	17.6	1	
		869	869	869	79.6	1	1 Excur. Fed. Sec. Std.
142	St. Louis Gen. Hosp. Butte Atkins Res. Butte Richer Res. Butte Highway Jct. Anaconda McKinley Res. Granite Co.	210	210	210	96.4	1	2 Excur. Fed. Sec. Std.
		130	130	306	56.0	1	
		46	46	46	27.9	1	
		70	70	250	42.0	1	
		90	90	147	24.9	1	



## MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

## MONTHLY SUMMARY OF AIR QUALITY DATA

January 1977

Page 2 of 2

Pollutant: Total Suspended Particulates Units: Micrograms/cubic meter

AREA		HIGH READING			GEOMETRIC AVER.		Comments
AQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Mon. of Data	
142	Mcrowave Jefferson Co.	52	52	66	22.2	1	
	212 Pacific St. Lewis & Clark Tlenny Res. Silt. Bow Co.	121	121	187	54.5	1	
		64	64	202	42.7	1	
143	Littlefield Miles City	13	13	87	8.8	1	
	Glendive Dawson Co.	19	19	102	19.0	1	
	Lindsay (107349) Dawson Co.			***			
	Lindsay (107312) Dawson Co.			***			
	Ft. Peck McCone Co.			***			
	Broadview Pow. Riv. Co.	13	13	62	7.9	1	
	BN Site Colstrip			***			
	McRae Site Colstrip			***			
144	High School Columbia Fall	139	139	294	67.5	1	
	Courthouse Missoula	295	295	342	103.7	1	1 Excur. Fed. Sec. Std.
	J. B. Field Missoula	125	125	214	51.8	1	
	Frenchtown Missoula Co.	113	113	146	40.0	1	

\*\*\* Sample not available at time of report

Pollutant: Miscellaneous Indicators Units:

AREA		HIGH READING			ARITHMETIC AVER.		Comments
AQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Mon. of Data	
141	DOUSTFALL - Tons/square mile	48.15	48.15	48.15	47.15	1	
	Mountain States Great Falls	23.75	23.75	37.73	23.75	1	
	Fire Sta. #1 Great Falls						
140	SULFATION RATE - milligrams SO <sub>2</sub> /100 sq. cm.	4.38	4.38	4.80	4.38	1	
	3/8 mi. NE Coop 811ings	3.22	3.22	3.22	3.22	1	
	East of Laurel 811ings	1.18	1.18	1.41	1.18	1	
141	H1-Ball Trucking 811ings	0.61	0.61	0.61	0.61	1	
	Stock Car Track Great Falls	0.25	0.25	0.31	0.25	1	
	Phillips Ref. E. Great Falls			***			
142	Phillips Ref. N1 Great Falls	0.65	0.65	0.65	0.65	1	
	Mcrowave E. Helena	1.60	1.60	2.57	1.60	1	
	Highway Jct. Anaconda	0.35	0.35	1.04	0.35	1	
143	C-H11 Anaconda			***			
	BN Site Colstrip			***			
	McRae Site Colstrip			***			

\*\*\* Sample not available at time of report

Pollutant: Miscellaneous Indicators

Units:

AREA		HIGH READING			ARITHMETIC AVER.		
AQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Mon. of Data	Comments
FLUORIDE PAPERS - micrograms/sq. cm./30 days							
142	Mullenburg Powell Co.	0.04	0.04	0.20	0.04	1	
	Lehman's Powell Co.	0.03	0.03	0.08	0.03	1	
	N. Ac. Hwy. Powell Co.	0.05	0.05	0.18	0.05	1	
	Ramsay West Silt. Bow Co.	1.77	1.77	1.77	1.77	1	
	ESE Stauffer Silt. Bow Co.	4.17	4.17	7.87	4.17	1	
143	BN Site Colstrip			***			
	McRae Site Colstrip			***			
144	DeHlboms Mt.Box Flathead Co.	0.35	0.35	1.71	0.35	1	
	Teakettle #10 Flathead Co.			***			
	Glac. Park #1 Glac. Nat.Pk.	0.24	0.24	0.58	0.24	1	
	Glac. Park #2 Glac. Nat. Pk.	0.36	0.36	0.58	0.36	1	
FLUORIDE PLATES - micrograms/sq. cm./30 days							
142	Durant Canyon Deer Lodge Co.	3.47	3.47	3.47	3.47	1	
	N. Ac. Hwy. Powell County	0.11	0.11	0.11	0.11	1	

\*\*\* Sample not available at time of report

Pollutant: Miscellaneous Indicators

Units:

AREA		HIGH READING			ARITHMETIC AVER.		Comments
AQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Mon. of Data	
	FLUORIDE PLATES (Cont.)						
142	NW on H111	0.06	0.06	0.10	0.06	1	
	Powell Co.						
	Ramsay West	1.86	1.86	1.86	1.86	1	
	S11. Bow Co.						
	ESE Stauffer	4.92	4.92	10.90	4.92	1	
	S11. Bow Co.						
143	BN Site			---			
	Colstrip						
	McRae Site			---			
	Colstrip						
144	Teakettle #10			---			
	Flathead Co.						
	Teakettle #6			---			
	Flathead Co.						
	Anaconda South	5.00	5.00	8.82	5.00	1	
	Flathead Co.						
	Glac. Park #1	0.45	0.45	0.72	0.45	1	
	Glac. Nat. Pk.						
	Glac. Park #2	0.60	0.60	0.81	0.60	1	
	Glac. Nat. Pk.						

\*\*\* Sample not available at time of report

